CLAIMS:

1. A method of optoelectrical conversion, comprising the steps of:

providing a first electrical signal to an electrical directional element (202),

the electrical directional element (202) directing the first electrical signal to an optoelectric converter (201),

the optoelectric converter (201) converting the first electrical signal into an optical signal and providing the optical signal to a DUT (106),

the optoelectric converter (201) receiving and converting a reflected optical signal reflected by the DUT (106) back into a second electrical signal, and

the electrical directional element (202) directing the second electrical signal to a receiver (102).

2. The method of claim 1, further comprising the steps of:

the optoelectric converter (201) converting the first electrical signal into an optical signal by emitting light caused by an electrical excitation of the optoelectric converter (201) by the first electrical signal.

3. The method of claim 1 or any one of the above claims, further comprising the steps of:

the optoelectric converter (201) converting the reflected optical signal back into a second electrical signal by generating an electrical signal caused by an optical excitation of the optoelectric converter (201) by the optical signal.

4. The method of claim 1 or any one of the above claims, further comprising the steps of:

introducing a time delay between providing the optical signal to the DUT (106) and receiving the reflected optical signal from the DUT (106).

5. A method of performing an OTDR measurement by using the method of claim 1 or any one of the above claims.

6. A software program or product, preferably stored on a data carrier, for executing the method of one of the claims 1 to 5 when run on a data processing system such as a computer.

7. An apparatus for optoelectrical conversion, comprising:

a transmitter driver (101) for providing a first electrical signal to an electrical directional element (202) connected to the transmitter driver (101),

the electrical directional element (202) for directing the first electrical signal to an optoelectric converter (201) connected to the electrical directional element (202),

the optoelectric converter (201)

for converting the first electrical signal into an optical signal and for providing the optical signal to a DUT (106) connected to the optoelectric converter (201), and

for receiving and converting a reflected optical signal reflected by the DUT (106) back into a second electrical signal, and

a receiver (102) for receiving the second electrical signal from the electrical directional element (202) connected to the receiver (102).

8. The apparatus of claim 7,

wherein the transmitter driver (101) comprises a laser driver.

9. The apparatus of claim 7 or any one of the above claims,

wherein the electrical directional element (202) comprises a switch to switch between a connection of the transmitter driver (101) with the optoelectric converter (201) and of the receiver (102) with the optoelectric converter (201).

10. The apparatus of claim 7 or any one of the above claims,

wherein the electrical directional element (202) comprises an electrical directional coupling device.

11. The apparatus of claim 7 or any one of the above claims,

wherein the optoelectric converter (201) comprises a laser diode and/or a light emitting diode.

12. The apparatus of claim 7 or any one of the above claims, further comprising:

wherein the transmitter driver (101) and the receiver (102) are part of an evaluation unit for a OTDR measurement setup.

13. The apparatus of claim 13 or any one of the above claims, further comprising:

a time delay element (203) connected to the optoelectric converter (201) and the DUT (106) for introducing a time delay between the provision of the optical signal to the DUT (106) and the receipt of the reflected optical signal from the DUT (106) by the optoelectric converter (201).

14. An OTDR measurement setup comprising an apparatus of claim 7 or any one of the above claims.